COST-IT-RIGHT: FINDING THE BEST APPROACH FOR PRODUCT COSTING

Nor Hawani Wan Abdul Rahman[1.a], Sabariah Jamaluddin[1.b], Anis Barieyah Mat Bahari [1.c], Lily Mazlifa Mustafa[1.d], Noor Hasimah M. Yacob[1.e]

[1]*Faculty of Accountancy, Universiti Teknologi Mara UiTM Pahang, 26400 Bandar Jengka*
norhawani@uitm.edu.my

Abstract: This paper invokes understanding and examining the importance of calculating an accurate product cost for making sound decisions about pricing, performance, production mix, and competitive strategy specifically for a new entrepreneur. Identification and understanding of direct and indirect costs to be charged to product costs are highlighted to avoid the impact of cost distortion. The attention is focused on the creation of a costing tool, known as the Cost-It-Right (CIR) system to help users to understand basic calculations in determining a right cost of a product, overcoming product cost distortion, and simultaneously able to achieve better financial performance with competitive price.

Keyword: Product Cost, Direct Cost, Indirect Costs, Cost Distortion, Cost-It-Right (CIR)

Introduction

Costing is the ascertainment of cost by applying the principles, methods, and techniques of both accounting and cost accounting areas (Das, 2013). Businesses are able to plan and control costs by using cost information to develop a costing system to achieve their objectives. Therefore, an efficient costing system helps in determining accurate product cost calculation where the performance of the business can be monitored (Das, 2013). The use of cost information assists managers in making decisions starting from identifying the cost to be incurred until setting up the selling price of a product. A quality decision can be achieved through a good interpretation of the cost elements, together with the methods of information processing used and the level of preparation of decision-makers (Răscolean & Rakos, 2020).

Due to growing competition in globalized markets, companies need more accurate information about the profitability of their products, customers, or markets. All these problems carry a higher need for understanding of the consumed costs by different activities and other different areas where the costs play an important role (Novak & Popesko, 2014). Răscolean & Rakos (2020) defined cost as a sum of money spent on the production or purchase of a good, the execution of a work, or the provision of a service. There are however different costs for different purposes, as well as different cost classifications, namely variable costs, fixed costs, direct and indirect costs, controllable and uncontrollable costs (Effiong & Oti, 2012).

In general, production costs include the direct cost and indirect costs. A direct cost is a cost that can be easily and conveniently traced to a particular cost object under consideration (Novak & Vencalek, 2016; Li et al., 2010). A cost object is anything for which cost data is required including products, customers, jobs, and organizational subunits. In specific, the direct cost is closely related to the product dimension, geometry size, weight, and so on (Li et al., 2010). For example, the material and labor costs can be easily traced to cost objects through physical tracing because the product design specification will exactly provide information detailing how much material and labor are required to manufacture one unit of a product (Herath & Kusy, 2014; Beaulieu & Mikulecky, 2008). However, in the construction industry, direct costs do not represent all costs that can be identified specifically to a job. Generally, direct costs are limited to only the actual costs of construction such as craft labor, material, equipment, and subcontracts. These costs are often referred to as hard costs and are integral to the installed or constructed component (Norfleet, 2007).

Meanwhile, the indirect cost is a cost that cannot be easily and conveniently traced to a particular cost object under consideration (Li et al., 2010; Beaulieu & Mikulecky, 2008). This is because these

costs are common to all products manufactured during a specific period. Furthermore, some indirect costs may be incurred per batch, some may be per job, and electricity and heating costs may be incurred for the operating period (Herath & Kusy, 2014). Lundsten & Zimmermann (2006) divide the indirect cost into three broad categories as fringe benefits, overhead and general and administrative expenses. Fringe benefits refer to allowances and services provided by the contractor to its employees as compensation in addition to regular wages and salaries. Meanwhile, overhead expenses are costs incurred to support operations, benefit more than one final cost objective, and can be distributed in reasonable proportion to benefits received (Lundsten & Zimmermann, 2006). General and administrative expense is mostly used outside the construction industry but is synonymous with home office overhead in the construction industry. The types of expenses in this category typically include accounting, legal, office rent, executive salaries, administrative costs, office supplies, marketing, and insurance (Norfleet, 2007). All these identified indirect costs are important elements in determining the effective cost of the product or service.

However, the fundamental problem in determining the costs of systems or services is deciding how indirect costs should be assigned to the total costs of the system or services. The process of making the decision is referred to in the accounting literature as cost allocation and 3 bases can be used to allocate the indirect costs, namely labour hours, labour dollar, and machine hours. (Snyder & Davenport, 1997). Labor hours are the classic basis for allocation in a manufacturing environment, and in some cases may be appropriate for the service industry. A major criticism of direct labour hours as a basis is that labour plays an increasingly small role in many operations such as an electronic information services environment where much of the labour is performed via automation. In addition, labour dolar basis is commonly used where higher salaried workers are responsible for a greater proportion of the resources used in production or service. Finally, machine hours are more appropriate predictor of overhead use than labour for the highly mechanized or automated electronic processes. A drawback to the use of machine-hours may be the difficulty in gathering cost data. Therefore, designing an effective cost allocation method requires a deep understanding of the cost base to be allocated and the underlying cost drivers. Each organization's approach to cost allocation will vary depending on its requirements, of course.

Research Objective

The general objective of this study is to increase understanding of product cost computation and its importance. Specifically, the objectives are as follows:

1. To ease new entrepreneurs in calculating /determining the right cost of a product.
2. To overcome product cost distortion to achieve better financial performance and competitive price.
3. To enhance basic cost accounting knowledge to interested users (e.g.: applying IT template in a classroom).

The Importance of Product Cost

The cost incurred to produce or create a product that is interested in a sale to customers is known as product cost. Research investigating product costing practices stated before the 1990s as there was little information available on product costing practices (Brierley et al., 2001). Then the interest flows in examining how costing practices are changing with changes in the business environment. As a consequence, it tends to spark criticism from academicians and practitioners' observation to understand the product cost practices (Drury & Tales, 1995).

Today's business scenario requires a business to calculate product cost precisely because overcharging on or undercharging costs will affect the business competitiveness. Because of this sensitive and crucial role in an organization, product cost tended to be a key agenda for managerial policies and business decisions (Niazi et al., 2006). A study by Brierley et al. (2001) shows that just over half of the businesses produce cost information for decision making, such as setting the selling price, make or buy, cost reduction, product design, and evaluating new production process design.

Some researchers have found that full product cost is often the main determinants of the product price as the role to calculate the cost of production and the calculation of the selling price is very

important to an optimum profit of the organization (Drury et al., 1993; Friedman & Lyne, 1995; Wahyuningsih et al., 2020). Without the accurate and precise calculation of product cost, the business will face problems in determining the selling price of the product. Ideally, the selling price should always recover the product costs but sometimes the situation is opposite, in which case the selling price does not recover the product costs because prices are determined by the market (Spickova, 2013). Thus, a competitive pricing strategy is needed for business survival.

This error in analyzing costs and selling price causes it to be one of the factors of loss or inability to meet break-even point, resulting in the business faced in a loss and inability to remain competitive scenario (Wahyuningsih et al., 2020). The effective and sound product cost has a direct bearing on the performance and effectiveness of a business enterprise (Niazi et al., 2006) and crucial to competitive success and avoiding product cost distortion (Cooper & Kaplan, 1998).

Furthermore, Simintiras et al. (2015) also argued that product information of unit cost is crucially important for buying decision making, as it does not permit judgement pertaining to the price fairness of products and services. Availability of unit cost information allows the comparison of unit cost and price on any offering in addition to a comparison between alternatives, and help consumers identify the best alternative in the market within the context of price "fairness". Price fairness facilitated by the availability of market information, market transparency, price transparency, and cost transparency would increase consumer empowerment and market efficiency

Impact of Cost Distortion

In reviewing the importance of cost information for the business, we must also discuss the impact of cost distortion. This is important to educate especially for the new business person or entrepreneurs or maybe small business owners to know the consequences if they take for granted in ascertaining the cost of their product.

Furthermore, the business only realized their business makes mistakes when they have calculated their profits due to cost distortion far behind with other businesses within the same industries. Because most of the businesses detected the problem only after their competitiveness and profitability deteriorated (Copper & Kaplan, 1990). Besides, they explained that if the cost data is being distorted, the selling price of the product will be affected but the real cost incurred during the production of the product is higher compared to the determined selling price. Moreover, according to Copper and Kaplan (1990), some cost distortion happens due to rising overhead costs and other indirect costs involved being reported as direct labour-based. At least by knowing the consequences of cost distortion to product cost, the business able to accumulate its cost systematically before it is too late.

According to Holt (2001), mentioned in his article, it is important for electrical contractors should know how to determine selling price to cover at least their business break-even cost and profits. Other than that, other factors to determine the selling price are identifying profits and all costs involved in the product. Indeed, the business commonly will use cost estimation to determine business targeted profits and selling price. If errors in the cost estimation took place, may result in unplanned expenses, such as labour overruns, overtime, excessive material consumption, and unanticipated direct costs (Holt, 2001). Hence, it is important for the business especially the sellers of the product to gather accurate cost information to make a good estimation cost for the determination of selling price and profits.

Karwowski et. al. (2015) mentioned, the decisions regarding product profitability and prices require accurate cost data for each product. Not only that, a lack of accurate information about the cost of specific products may not reduce the economic risk. Economic risk is the risk of not achieving the results expected within a decision-making process (Karwowski et. al., 2015). Furthermore, they concluded that the inaccurate valuation of individual product costs may lead to material distortions of financial results and the value of inventories, if this situation continues, it may impair the condition of the company. As their study has revealed that the cost accounting used (idle capacity during inventory valuation) in Polish companies does not adequately support sound decision-making. In respect of that, the business needs to take into accounts all costs involved in its product cost estimation.

Not only that, according to Howell and Stoucy (1991), they mentioned there were two problems regarding the cost information used in the decision making of the companies. First, the existing product-cost information used to compare outsourcing and overseas production alternatives is often wrong. The companies realized the computation cost is over costing high volume, core products while under costing

low volume, specialty product. The other problem is difficulty in recognizing the hidden cost such as overhead, higher inventory, freight and duty, and other costs. Thus, inaccurate cost information may lead to a wrong conclusion and eventually wrong decision making.

From the above literature, it is crucial to know the impact of cost distortion especially in determining the cost and selling price of the product. Inaccurate cost information may lead to poor decision making episodes and profitability of the business. With Cost It Right (CIR) it may help especially the business owners and entrepreneurs who have a little background of cost accounting knowledge to identify and pool the cost involved in producing the products. CIR breakdowns each total cost components to ensure all possible cost information of the product can be ascertained systematically.

Job Cost Card as Costing Tool: Cost-It-Right (CIR) Template

Appropriate costing technique is important as to achieve customer satisfaction and pricing mistakes should be avoided because the business may end up losing customers, sales declining, and loses potential profit (Sofyan, 2020; Wahyuningsih et al., 2020). Informative product cost information may also reduce the possibility of managers making poor decisions (Landry & Chan, 2013). Additionally, it is necessary that enterprises know and understands their activities and the relevant cost and result (Spickova, 2013) because without an accurate and correct calculation of the cost of the production, they will encounter problems in setting the selling price of a product (Wahyuningsih et al., 2020). If the selling price is too low, it will give the same effect on the profit as well of which it may bring the business at loss, and if the price of the product is too high, then the business will face difficulty to compete with similar products on the market (Suprianto & Martanti, 2020).

The use of technological tools helps businesses to remain competitive and the business owners should readily adapt to the rapidly changing environment. To be successful, a business owner not only should possess knowledge and understanding of financial matters, but he also needs to transform the business using technological capability (Chan et al., 2000). According to Chan et al. (2000), careful design of tools can have increasing strategic importance for businesses in emerging competence for future transformation. Among the benefits for organization that adopt/embrace information communication technology includes enhanced operational efficiency, improved performance, improved of service quality delivery resulting to customer satisfaction, increase in market share growth which will result to a sustainable competitive advantage (Teryima & Sunday, 2015).

Cost-It-Right (CIR) is a system that helps users to understand basic calculations in determining the right cost of a product, overcoming product cost distortion, and simultaneously able to achieve better financial performance at a competitive price. The system features a job cost card where users will fill out relevant information at the appropriate columns. Sufficient information about the costing terms used and a comprehensive example are provided to assist users in completing the process. At the end of the process, users can know the selling price per unit of the product, the totals costs involved, and the estimated profit. Studies have been made that using a job order costing as a learning tool in introductory managerial accounting or cost accounting provides hands-on experience to students and exposed them to an actual manufacturing operation (Greenberg & Schneider, 2010; Pollard, 2018). Therefore, CIR chooses job cost card features to assist business owners to gain product costing knowledge and setting appropriate selling price or profit accordingly.

Job cost cards can be used to assist businesses to achieve their goals and improve performance (Greer, 2004). Cost sheets with an orderly presentation of the direct materials, direct labour, and applied overhead relevant to each job offer significant help to increase the interest and understanding of users (Pollard, 2018). However, to maximise the benefits of using job costing, businesses need to have a simple design of the system and the key personnel must understand the purpose of using the system of which to control the operational costs and refine estimating procedure (Greer, 2004).

References

Beaulieu, P., & Mikulecky, M. (2008). Inside activity-based cost systems. *Industrial Management*, 50(3), 17-21, 5. Retrieved from http://search.proquest.com.ezaccess.library.uitm.edu.my/docview/211637919?accountid=42518

Brierley, J. A. (2001). A comparison of the product costing practices of large and small-to medium-sized enterprises: A survey of British manufacturing firms. *International Journal of Management*, *28*(4), 184.

Chan, M. F. S., Keung, K. F., & Chung, W. W. C. (2000). A design of an ABC template for easy assimilation in SME. *Logistics Information Management*. *13*(3), 126-133. https://doi.org/10.1108/09576050010326529

Cooper, R., & Kaplan, R. S. (1990). Measure costs right: Make the right decision. *The CPA Journal*, 60 (2), 38.

Cooper, R., & Kaplan, R. S. (1998). The promise-and peril-of integrated cost systems. *Harvard business review*, *76*(4), 109-120.

Das, P. (2013). Cost Accounting. Fifth Edition. Oxford University Press.

Drury, C., & Tayles, M. (1995). Issues Arising from surveys of management accounting practice. *Management Accounting Research*, *6*, 267-280.

Drury, C., Bround, S., Osborne, P., & Tayles, M. (1993). "A survey of management accounting practices in UK manufacturing companies", *ACCA Research Report Association of Certified Chartered Accountants*, London.

Effiong, S. A., & Oti, P. A. (2012). Analytical evaluation of cost elements and their influence on productivity of manufacturing firms. *Journal of Finance and Investment Analysis, 1*(3), 171-180.

Friedman, A. L., & Lyne, S. R. (1995). Activity-based techniques and the death of the beancounter. *European Accounting Review*, *6*(1), 19-44.

Greenberg, R. K., & Schneider, A. (2010). Job order costing: A simulation and vehicle for conceptual discussion. *Academy of Educational Leadership Journal*, *14*(3), 39.

Greer, F. (2004). Job costing, part IV: How basic job costing can improve profitability. *PWC* September-October 2004.

Herath, H. S. B., & Kusy, M. I. (2014). Activity-based costing: Potential research issues on the choice of cost management systems. *Cost Management*, *28*, 6-16. Retrieved from http://search.proquest.com.ezaccess.library.uitm.edu.my/docview/1566333060?accountid=42518

Holt, M. (2001). Determining a job's selling price. *EC & M*, *100* (9), 38.

Howell, R. A., & Soucy, S. R. (1991). Determining the real costs of doing business in a global market. *National Productivity Review*, *10*(2), 157.

Karwowski, M., Swiderska, G. K., & Warowny, P. (2015). The valuation of finished products as an important risk factor in the distortion of financial statements. *Stowarzyszenie Księgowych w Polsce*, *84*(140), 95-114.

Landry, S. P., & Chan, C. (2013). A cost analysis case study of a small chinese manufacturer. *Journal of Business Case Studies (JBCS)*, *9*(3), 203-214.

Li, Y., Terpenny, J., & Chang, X. (2010). A framework for activity-based costing and product family cost estimation. *IIE Annual Conference. Proceedings*, 1-6. Retrieved from http://search.proquest.com.ezaccess.library.uitm.edu.my/docview/733013102?accountid=42518.

Lundsten, D. J., & Zimmermann, S. E. (2006). The financial aspects of project management. *Contract Management*, *46*, 14-16, 18-22. Retrieved from http://search.proquest.com.ezaccess.library.uitm.edu.my/docview/196310453?accountid=42518

Niazi, A., Dai, J. S., Balabani, S., & Seneviratne, L. (2006). Product cost estimation: Technique classification and methodology review. *Journal of Manufacturing and Science Engineering*, *128*(2), 563-575

Norfleet, D. A., C.C.C. (2007). The theory of indirect costs. *AACE International Transactions*, ES121-ES126. Retrieved from http://search.proquest.com.ezaccess.library.uitm.edu.my/docview/208198993?accountid=42518

Novak, P., & Vencalek, O. (2016). Is it sufficient to assess cost behavior merely by volume of production? Cost behavior research results from Czech Republic. *Montenegrin Journal of Economics,12*(3), 139-154. doi:http://dx.doi.org.ezaccess.library.uitm.edu.my/10.14254/1800-5845.2016/12-3/10

Novak, P., & Popesko, B. (2014). Cost variability and cost behaviour in manufacturing enterprises. *Economics and Sociology*, *7*(4), 89-103.

Pollard, W. B. (2018). An active learning approach to teaching job-order costing. *Management Accounting Quarterly*, *19*(4), 10.

Răscolean, I., & Sorina Rakos, I. (2020). The influence of costs on the economic substantiation of the decision with an impact on business evaluation. *"Ovidius" University Annals, Economic Sciences Series, 0*(1), 1020-1028.

Simintiras, A. C., Dwivedi, Y. K., Kaushik, G., & Rana, N. P. (2015). Should consumers request cost transparency?. *European Journal of Marketing*, *49*(11/12), 1961-1979.

Snyder, H., & Davenport, E. (1997). What does it really cost? Allocating indirect costs. *The Bottom Line, 10*(4), 158. doi:http://dx.doi.org.ezaccess.library.uitm.edu.my/10.1108/08880459710183035

Sofyan, I. A. (2020). A case study at company x on determining selling price based on cost plus pricing. *Jurnal Ilmiah Mahasiswa, FEB, 8*(2).

Spickova, M. (2013). The use of cost management techniques as a strategic weapon in SMEs. *Scientific papers of the University of Pardubice. Series D, Faculty of Economics and Administration. 28* (3), 122-133.

Suprianto, S., & Martanti, D. E. (2020). Cost of goods sold of *wajik* at Cap Kuda Terbang small and medium enterprise in Blitar: An analysis. *Journal of Academic Research and Sciences, 5*(1), 27-35.

Teryima, S. J., & Sunday, A. (2015). The role of information communication technology (ICT) in enhancing productivity in local government administration in Benue State, Nigeria. *International Journal of Business and Economic Development (IJBED), 3*(1), 110-124.

Wahyuningsih. D., Yolanda, S., & Pratami, E. (2020). Understanding analysis of production cost calculation, determining sell price, and financial literation of industrial businesses continuity in micro, small and medium enterprise (MSME) in city of PekanBaru. *Research Journal of Finance and Accounting, 11*, 77-84.